

Amendments To The Claims:

The listing of claims set forth below will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (currently amended) An improved quick release mechanical
2 bracket for detachably retaining a tank therewithin
3 comprising:
 - 4 A. a frame means extending vertically including;
 - 5 (1) an upper flange means extending outwardly
6 therefrom;
 - 7 (2) a lower flange means extending outwardly therefrom
8 at a position spatially disposed below said upper
9 flange means to define a tank holding zone
10 therebetween;
 - 11 B. a first driveshaft means rotatably mounted within said
12 upper flange means and rotatably mounted within said
13 lower flange means and extending therebetween;
 - 14 C. a second driveshaft means rotatably mounted within said
15 upper flange means at a position laterally spatially
16 disposed from said first driveshaft means, said second
17 driveshaft means being rotatably mounted within said
18 lower flange means at a position spatially disposed
19 laterally from said first driveshaft means, said second
20 driveshaft means extending vertically between said
21 upper flange means and said lower flange means at a

22 position laterally displaced from said first driveshaft
23 means, said second driveshaft means and said first
24 driveshaft means extending vertically approximately
25 parallel with respect to one another to define said
26 tank holding zone therebetween below said upper flange
27 means and above said lower flange means;

28 D. at least one tank clamping means secured to said first
29 driveshaft means and said second driveshaft means and
30 being movable therewith between the closed position
31 retaining a tank within said tank holding zone and an
32 opened position releasing a tank to allow removal
33 thereof from said tank holding zone, each of said tank
34 clamping means including;

35 (1) a first clamping arm means secured to said first
36 driveshaft means to be rotatably movable therewith
37 between a closed position in abutting engagement
38 with a tank positioned within said tank holding
39 zone for retaining same therewithin and the opened
40 position releasing same;

41 (2) a second clamping arm means secured to said second
42 driveshaft means and rotatably movable therewith
43 between a closed position in abutting engagement
44 with a tank positioned within said tank holding
45 zone for retaining same therewithin and the opened
46 position releasing same;

47 E. a first guide boss means fixedly secured to said frame

48 means below said upper flange means and above said
49 lower [[frame]] flange means at a position intermediate
50 therebetween adjacent said first driveshaft means, said
51 first guide boss means defining a first profiled guide
52 surface at least partially encircling said first
53 driveshaft means and positioned thereadjacent to
54 prevent lateral deflection thereof;

55 F. a second guide boss means fixedly secured to said frame
56 means below said upper flange means and above said
57 lower [[frame]] flange means at a position intermediate
58 therebetween adjacent said second driveshaft means,
59 said second guide boss means defining a second profiled
60 guide surface at least partially encircling said second
61 driveshaft means and positioned thereadjacent to
62 prevent lateral deflection thereof; and

63 G. an interengagement means operatively attached with
64 respect to said first driveshaft means and said second
65 driveshaft means for rotating both simultaneously, said
66 interengagement means being operative to rotate said
67 first driveshaft means counterclockwise and said second
68 driveshaft means clockwise simultaneously to move said
69 first clamping arm means and said second clamping arm
70 means toward the closed position for retaining of a
71 tank within said tank holding zone, said
72 interengagement means being operative to rotate said
73 first driveshaft means clockwise and said second

74 driveshaft means counterclockwise simultaneously to
75 move said first clamping arm means and said second
76 clamping arm means toward the opened position for
77 releasing of a tank from within said tank holding zone.

1 2. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first profiled guide surface of said first
4 guide boss means is positioned adjacent said first
5 driveshaft means diametrically opposite from said tank
6 holding zone to restrict lateral flexing of said first
7 driveshaft means away from said tank holding zone and
8 wherein said second profiled guide surface of said second
9 guide boss means is positioned adjacent said second
10 driveshaft means diametrically opposite from said tank
11 holding zone to restrict lateral flexing of said second
12 driveshaft means away from said tank holding zone.

1 3. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first profiled guide surface of said first
4 guide boss means is laterally spaced from said first
5 driveshaft means at a distance of less than 0.015 inches and
6 wherein said second profiled guide surface of said second
7 guide boss means is laterally spaced from said second
8 driveshaft means at a distance of less than 0.015 inches.

1 4. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first profiled guide surface of said first
4 guide boss means is laterally spaced from said first
5 driveshaft means at a distance of between 0.005 and 0.010
6 inches inclusively and wherein said second profiled guide
7 surface of said second guide boss means is laterally spaced
8 from said second driveshaft means at a distance of between
9 0.005 and 0.010 inches inclusively.

1 5. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first profiled guide surface is arcuate and
4 wherein said second profiled guide surface is arcuate.

1 6. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first profiled guide surface of said first
4 guide boss means extends through an arc of greater than 90
5 degrees and less than 270 degrees to further limit lateral
6 deflecting of said first driveshaft means and wherein said
7 second profiled guide surface of said second guide boss
8 means extends through an arc of greater than 90 degrees and
9 less than 270 degrees to further limit lateral deflecting of
10 said second driveshaft means.

1 7. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first profiled guide surface of said first
4 guide boss means extends through an arc approximately 120
5 degrees to further limit lateral deflecting of said first
6 driveshaft means and wherein said second profiled guide
7 surface of said second guide boss means extends through an
8 arc of approximately 120 degrees to further limit lateral
9 deflecting of said second driveshaft means.

1 8. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first profiled guide surface of said first
4 guide boss means includes a first upper guide edge and a
5 first lower guide edge spaced apart from said first upper
6 guide edge to further prevent deflection of said first
7 driveshaft means laterally and wherein said second profiled
8 guide surface of said second guide boss means includes a
9 second upper guide edge and a second lower guide edge spaced
10 apart from said second upper guide edge to further prevent
11 deflection of said second driveshaft means laterally.

1 9. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said tank clamping means includes;

4 A. an upper tank clamping member including a first upper
5 clamping arm means and a second upper clamping arm
6 means, said first upper clamping arm means being
7 secured to said first driveshaft means at a position
8 thereon closer to said upper flange means than to said
9 lower flange means and said second upper clamping arm
10 means being secured to said second driveshaft means at
11 a position thereon closer to said upper flange means
12 than to said lower flange means; and
13 B. a lower tank clamping member including a first lower
14 clamping arm means and a second lower clamping arm
15 means, said first lower clamping arm means being
16 secured to said first driveshaft means at a position
17 thereon closer to said lower flange means than to said
18 upper flange means and said second lower clamping arm
19 means being secured to said second driveshaft means at
20 a position thereon closer to said lower flange means
21 than to said upper flange means.

1 10. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 9 wherein said first guide boss means is located at an
4 intermediate position adjacent said first driveshaft means
5 below said first upper clamping arm means and above said
6 first lower clamping arm means to minimize lateral
7 deflection of said first driveshaft means.

1 11. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 9 wherein said second guide boss means is located at an
4 intermediate position adjacent said second driveshaft means
5 below said second upper clamping arm means and above said
6 second lower clamping arm means to minimize lateral
7 deflection of said second driveshaft means.

1 12. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first driveshaft means is of hexagonal cross-
4 sectional shape defining first flat zones with first
5 protruding corner edges between adjacent of said first flat
6 zones to facilitate keying thereof with respect to said tank
7 clamping means and to facilitate simultaneous rotation
8 thereof between the closed position and opened position and
9 wherein said first profiled guide surface is spaced at
10 approximately 0.005 to 0.010 inches from said first
11 protruding corner edges for selective abutment therewith
12 responsive to lateral deflection of said first driveshaft
13 for minimizing thereof.

1 13. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said second driveshaft means is of hexagonal

4 cross-sectional shape defining second flat zones with second
5 protruding corner edges between adjacent of said second flat
6 zones to facilitate keying thereof with respect to said tank
7 clamping means and to facilitate simultaneous rotation
8 thereof between the closed position and opened position and
9 wherein said second profiled guide surface is spaced at
10 approximately 0.005 to 0.010 inches from said second
11 protruding corner edges for selective abutment therewith
12 responsive to lateral deflection of said second driveshaft
13 for minimizing thereof.

1 14. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first driveshaft means and said second
4 driveshaft means are made of steel and wherein said first
5 guide boss means and said second guide boss means are made
6 of cast aluminum to minimize wear of said first driveshaft
7 means and said second driveshaft means responsive to lateral
8 deflection thereof causing abutment thereof with respect to
9 said first guide boss means and said second guide boss
10 means, respectively.

1 15. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first guide boss means is positioned adjacent
4 said first driveshaft means at a position halfway between

5 said upper flange means thereabove and said lower flange
6 means therebelow and wherein said second guide boss means is
7 positioned adjacent said second driveshaft means at a
8 position halfway between said upper flange means thereabove
9 and said lower flange means therebelow.

1 16. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said first guide boss means and said second guide
4 boss means are integrally formed with respect to said frame
5 means.

1 17. (original) An improved quick release mechanical bracket for
2 detachably retaining a tank therewithin as defined in Claim
3 1 wherein said frame means includes a securement apparatus
4 for facilitating mounting of said frame means to
5 environmental structure, said securement apparatus
6 including:

- 7 A. an upper securement means positioned adjacent said
8 upper flange means;
- 9 B. a lower securement means positioned adjacent said lower
10 flange means; and
- 11 C. an intermediate securement means positioned immediately
12 adjacent said first guide boss means and said second
13 guide boss means for facilitating maintaining of
14 structural integrity thereof in order to minimize

15 lateral deflecting of said first driveshaft means and
16 said second driveshaft means, respectively.

1 18. (currently amended) An improved quick release mechanical
2 bracket for detachably retaining a tank therewithin
3 comprising:

- 4 A. a frame means extending vertically including;
5 (1) an upper flange means extending outwardly
6 therefrom;
7 (2) a lower flange means extending outwardly therefrom
8 at a position spatially disposed below said upper
9 flange means to define a tank holding zone
10 therebetween;
11 B. a first driveshaft means rotatably mounted within said
12 upper flange means and rotatably mounted within said
13 lower flange means and extending therebetween;
14 C. a second driveshaft means rotatably mounted within said
15 upper flange means at a position laterally spatially
16 disposed from said first driveshaft means, said second
17 driveshaft means being rotatably mounted within said
18 lower flange means at a position spatially disposed
19 laterally from said first driveshaft means, said second
20 driveshaft means extending vertically between said
21 upper flange means and said lower flange means at a
22 position laterally displaced from said first driveshaft
23 means, said second driveshaft means and said first

24 driveshaft means extending vertically approximately
25 parallel with respect to one another to define said
26 tank holding zone therebetween below said upper flange
27 means and above said lower flange means;

28 D. a tank clamping means secured to said first driveshaft
29 means and said second driveshaft means and being
30 movable therewith between the closed position retaining
31 a tank within said tank holding zone and an opened
32 position releasing a tank to allow removal thereof from
33 said tank holding zone, said tank clamping means
34 including;

35 (1) an upper tank clamping member including

36 (a) a first upper clamping arm means;

37 (b) a second upper clamping arm means, said first
38 upper clamping arm means being secured to
39 said first driveshaft means at a position
40 thereon closer to said upper flange means
41 than to said lower flange means and said
42 second upper clamping arm means being secured
43 to said second driveshaft means at a position
44 thereon closer to said upper flange means
45 than to said lower flange means;

46 (2) a lower tank clamping member including;

47 (a) a first lower clamping arm means;

48 (b) a second lower clamping arm means, said first
49 lower clamping arm means being secured to

50 said first driveshaft means at a position
51 thereon closer to said lower flange means
52 than to said upper flange means and said
53 second lower clamping arm means being secured
54 to said second driveshaft means at a position
55 thereon closer to said lower flange means
56 than to said upper flange means;

57 E. a first guide boss means formed integrally with said
58 frame means below said upper flange means and above
59 said lower [[frame]] flange means at a position
60 intermediate therebetween adjacent said first
61 driveshaft means, said first guide boss means defining
62 a first profiled guide surface being arcuate and at
63 least partially encircling said first driveshaft means
64 and positioned thereadjacent to prevent lateral
65 deflection thereof, said first profiled guide surface
66 of said first guide boss means being positioned
67 adjacent said first driveshaft means diametrically
68 opposite from said tank holding zone to restrict
69 lateral flexing of said first driveshaft means away
70 from said tank holding zone, said first profiled guide
71 surface of said first guide boss means being laterally
72 spaced from said first driveshaft means at a distance
73 of less than 0.015 inches, said first profiled guide
74 surface of said first guide boss means extending
75 through an arc of greater than 90 degrees and less than

76 270 degrees to further limit lateral deflecting of said
77 first driveshaft means, said first guide boss means
78 being positioned adjacent said first driveshaft means
79 at a position halfway between said upper flange means
80 thereabove and said lower flange means therebelow, said
81 first profiled guide surface including:
82 (1) a first upper guide edge;
83 (2) a first lower guide edge spaced apart from said
84 first upper guide edge, said first upper guide
85 edge and said first lower guide edge cooperating
86 to further prevent deflection of said first
87 driveshaft means laterally;
88 F. a second guide boss means formed integrally with said
89 frame means below said upper flange means and above
90 said lower ~~[[frame]]~~ flange means at a position
91 intermediate therebetween adjacent said second
92 driveshaft means, said second guide boss means defining
93 a second profiled guide surface being arcuate and at
94 least partially encircling said second driveshaft means
95 and positioned thereadjacent to prevent lateral
96 deflection thereof, said second profiled guide surface
97 of said second guide boss means being positioned
98 adjacent said second driveshaft means diametrically
99 opposite from said tank holding zone to restrict
100 lateral flexing of said second driveshaft means away
101 from said tank holding zone, said second profiled

guide surface of said second guide boss means being laterally spaced from said second driveshaft means at a distance of less than 0.015, said second profiled guide surface of said second guide boss means extending through an arc of greater than 90 degrees and less than 270 degrees to further limit lateral deflecting of said second driveshaft means, said second guide boss means being positioned adjacent said second driveshaft means at a position halfway between said upper flange means thereabove and said lower flange means therebelow, said second profiled guide surface of said second guide boss means including:

- (1) a second upper guide edge;
- (2) a second lower guide edge spaced apart from said second upper guide edge, said second lower guide edge and said second upper guide edge cooperating together to further prevent deflection of said second driveshaft means laterally; and

G. an interengagement means operatively attached with respect to said first driveshaft means and said second driveshaft means for rotating both simultaneously, said interengagement means being operative to rotate said first driveshaft means counterclockwise and said second driveshaft means clockwise simultaneously to move said first clamping arm means and said second clamping arm means toward the closed position for retaining of a

128 tank within said tank holding zone, said
129 interengagement means being operative to rotate said
130 first driveshaft means clockwise and said second
131 driveshaft means counterclockwise simultaneously to
132 move said first clamping arm means and said second
133 clamping arm means toward the opened position for
134 releasing of a tank from within said tank holding zone.

- 1 19. (currently amended) An improved quick release mechanical
2 bracket for detachably retaining a tank therewithin
3 comprising:
4 A. a frame means of aluminum extending vertically
5 including;
6 (1) an upper flange means extending outwardly
7 therefrom;
8 (2) a lower flange means extending outwardly therefrom
9 at a position spatially disposed below said upper
10 flange means to define a tank holding zone
11 therebetween;
12 (3) a securement apparatus for facilitating mounting
13 of said frame means to environmental structure,
14 said securement apparatus including:
15 (a) an upper securement means positioned adjacent
16 said upper flange means;
17 (b) a lower securement means positioned adjacent
18 said lower flange means;

19 (c) an intermediate securement means positioned
20 at an intermediate position below said upper
21 securement means and above said lower
22 securement means to facilitate fixed
23 securement of said frame means to
24 environmental structure;

25 B. a first driveshaft means made of steel and rotatably
26 mounted within said upper flange means and rotatably
27 mounted within said lower flange means and extending
28 therebetween;

29 C. a second driveshaft means made of steel and rotatably
30 mounted within said upper flange means at a position
31 laterally spatially disposed from said first driveshaft
32 means, said second driveshaft means being rotatably
33 mounted within said lower flange means at a position
34 spatially disposed laterally from said first driveshaft
35 means, said second driveshaft means extending
36 vertically between said upper flange means and said
37 lower flange means at a position laterally displaced
38 from said first driveshaft means, said second
39 driveshaft means and said first driveshaft means
40 extending vertically approximately parallel with
41 respect to one another to define said tank holding zone
42 therebetween below said upper flange means and above
43 said lower flange means;

44 D. a tank clamping means secured to said first driveshaft

means and said second driveshaft means and being
movable therewith between the closed position retaining
a tank within said tank holding zone and an opened
position releasing a tank to allow removal thereof from
said tank holding zone, said tank clamping means
including;

(1) an upper tank clamping member including

(a) a first upper clamping arm means;

(b) a second upper clamping arm means, said first
upper clamping arm means being secured to
said first driveshaft means at a position
thereon closer to said upper flange means
than to said lower flange means and said
second upper clamping arm means being secured
to said second driveshaft means at a position
thereon closer to said upper flange means
than to said lower flange means;

(2) a lower tank clamping member including;

(a) a first lower clamping arm means;

(b) a second lower clamping arm means, said first
lower clamping arm means being secured to
said first driveshaft means at a position
thereon closer to said lower flange means
than to said upper flange means and said
second lower clamping arm means being secured
to said second driveshaft means at a position

71 thereon closer to said lower flange means
72 than to said upper flange means;
73 E. a first guide boss means of aluminum and formed
74 integrally with said frame means below said upper
75 flange means and above said lower [[frame]] flange
76 means at a position intermediate therebetween adjacent
77 said first driveshaft means, said first guide boss
78 means positioned immediately adjacent said intermediate
79 securement means in order to facilitate maintaining of
80 structural integrity of said frame means thereadjacent
81 for minimizing lateral deflecting of said first
82 driveshaft mean, said first guide boss means defining a
83 first profiled guide surface being arcuate and at least
84 partially encircling said first driveshaft means and
85 positioned thereadjacent to prevent lateral deflection
86 thereof, said first profiled guide surface of said
87 first guide boss means being positioned adjacent said
88 first driveshaft means diametrically opposite from said
89 tank holding zone to restrict lateral flexing of said
90 first driveshaft means away from said tank holding
91 zone, said first profiled guide surface of said first
92 guide boss means being laterally spaced from said first
93 driveshaft means at a distance of 0.005 to 0.010
94 inches, said first profiled guide surface of said first
95 guide boss means extending through an arc of
96 approximately 120 degrees to further limit lateral

97 deflecting of said first driveshaft means, said first
98 guide boss means being located at an intermediate
99 position adjacent said first driveshaft means below
100 said first upper clamping arm means and above said
101 first lower clamping arm means to minimize lateral
102 deflection of said first driveshaft means, said first
103 guide boss means being positioned adjacent said first
104 driveshaft means at a position halfway between said
105 upper flange means thereabove and said lower flange
106 means therebelow, said first profiled guide surface
107 including:

- 108 (1) a first upper guide edge;
109 (2) a first lower guide edge spaced apart from said
110 first upper guide edge, said first upper guide
111 edge and said first lower guide edge cooperating
112 to further prevent deflection of said first
113 driveshaft means laterally;

114 F. a second guide boss means of aluminum and formed
115 integrally with said frame means below said upper
116 flange means and above said lower ~~[[frame]]~~ flange
117 means at a position intermediate therebetween adjacent
118 said second driveshaft means, said second guide boss
119 means positioned immediately adjacent said intermediate
120 securement means in order to facilitate maintaining of
121 structural integrity of said frame means thereadjacent
122 for minimizing lateral deflecting of said second

123 driveshaft means, said second guide boss means defining
124 a second profiled guide surface being arcuate and at
125 least partially encircling said second driveshaft means
126 and positioned thereadjacent to prevent lateral
127 deflection thereof, said second profiled guide surface
128 of said second guide boss means being positioned
129 adjacent said second driveshaft means diametrically
130 opposite from said tank holding zone to restrict
131 lateral flexing of said second driveshaft means away
132 from said tank holding zone, said second profiled
133 guide surface of said second guide boss means being
134 laterally spaced from said second driveshaft means at a
135 distance between 0.005 to 0.010 inches, said second
136 profiled guide surface of said second guide boss means
137 extending through an arc of approximately 120 degrees
138 to further limit lateral deflecting of said second
139 driveshaft means, said second guide boss means being
140 located at an intermediate position adjacent said
141 second driveshaft means below said second upper
142 clamping arm means and above said second lower clamping
143 arm means to minimize lateral deflection of said second
144 driveshaft means, said second guide boss means being
145 positioned adjacent said second driveshaft means at a
146 position halfway between said upper flange means
147 thereabove and said lower flange means therebelow, said
148 second profiled guide surface of said second guide boss

149 means including:

150 (1) a second upper guide edge;

151 (2) a second lower guide edge spaced apart from said

152 second upper guide edge, said second lower guide

153 edge and said second upper guide edge cooperating

154 together to further prevent deflection of said

155 second driveshaft means laterally; and

156 G. an interengagement means operatively attached with

157 respect to said first driveshaft means and said second

158 driveshaft means for rotating both simultaneously, said

159 interengagement means being operative to rotate said

160 first driveshaft means counterclockwise and said second

161 driveshaft means clockwise simultaneously to move said

162 first clamping arm means and said second clamping arm

163 means toward the closed position for retaining of a

164 tank within said tank holding zone, said

165 interengagement means being operative to rotate said

166 first driveshaft means clockwise and said second

167 driveshaft means counterclockwise simultaneously to

168 move said first clamping arm means and said second

169 clamping arm means toward the opened position for

170 releasing of a tank from within said tank holding zone.

Amendments To The Drawings:

None.